

## **REMARKS**

Reconsideration of the subject application in view of the present amendment is respectfully requested.

By the present amendment, Claim 45 has been rewritten in independent form. Claims 41, 63, 64 have been amended to more clearly define the invention claimed therein. Claims 42, 53-55, 74, 76 have been amended to correct formal errors therein. Claims 68 and 71 have been amended to delete reference to an element not shown in the drawings. Claims 42-44, 46-62, 66-68, and 70-78 have been amended to provide uniformity of language therein. Claim 79 has been added.

Based on the foregoing amendments and the following remarks, the application is deemed to be in condition for allowance and action to that end is respectfully requested.

### **I. Allowable Subject Matter**

It is respectfully submitted that claims 45-55 and 59 are in condition for allowance. Claim 45 and claims 46-55 and 59 dependent on claim 45, directly or indirectly, were not rejected over the prior, they were objected to as being

dependent on a rejected base claim, but were indicated as allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims (claim 45). Accordingly with claim 45 so rewritten, it is respectfully submitted that claims 45-55 and 59 are in condition for allowance.

## **II. Objection to the Drawings**

The Examiner objected to the drawings under 37 C.F.R. § 1.83(a) for not showing every feature of the invention specified in the claim, pointing out that the vacuum bag mentioned in claim 68 and 71 is not shown in the drawings.

As noted above, claims 68 and 71 have been amended to delete reference to the element not shown in the drawings. Accordingly, the objection to the drawings became moot.

## **III. Rejection of Claims Over the Prior Art**

The Examiner rejects Claims 41-44, 56-58, 60, 61, 65-67 and 72-74 under 35 U.S.C. § 103(a) as being unpatentable over Wilcox U.S. Patent No. 3,442,750 in view of Coogan, U.S. Patent No. 7,055,288. Claim 62 and claims 68, 71, and 78 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Wilcox in view of Coogan and further in view of Kavesh et al., U.S. Patent No.

5,006,390 (Kavesh), Meldner et al. (Meldner), U.S. Patent No. 5,333,568, and Rauch, U.S. Patent No. 4,309,464 (Rauch) respectively. Claims 63, 69, 70, 77 and claim 64 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Linville, U.S. Patent No. 4,945,848 (Linville) and Weitzel, U.S. Patent No. 2,932,121 (Weitzel), respectively, and further in view of Wilcox and Coogan. It is respectfully submitted that claims 41-44, 56-58, and 60-78 are patentable over the cited references.

Specifically, claim 41 recites insulation means arranged between the panels and associated with each tie rod to leave the tie rod longitudinally free between the panels. Claim 41 further recites that the insulation is formed of a same material as the tie rod. It is respectfully submitted that the foregoing features are not disclosed either in Wilcox and/or Coogan.

Wilcox, is recognized by the Examiner does not disclose insulation means between the panels and associated with each the tie rod to leave the tie rod longitudinally free between the panels.

It is respectfully submitted that Coogan is not a pertinent reference. Coogan discloses a prestressing sheath for use in bridge girders. As explained in Coogan (col. 1, lines 13-20), pre-cast concrete construction elements such as

bridge girders, etc., are stressed by placing tension on an elongated cylindrical rod or cable bundle having a generally circular cross-sectional area normally formed of twisted wires generally referred to as strands. Strands that are placed in a straight configuration near the bottom of a pre-stressed girder tend to overstress near the end of the girder at the moment of de-tensioning. As further discussed in Coogan (col. 1, lines 32-44), in order to avoid the overstress near the ends of the girder at the moment of de-tensioning several strands are debonded from the end of the girder towards mid-span over a length which would otherwise be overstressed. This eliminates the eccentric forces that the debonded strands would otherwise generate about the centroid of the girder, and thus reduces stresses.

The debonding of one or more strands is accomplished by placing a debonding sheath about the strands to be debonded. Once the sheath is installed on the strands, the ends of the sheath are sealed to help prevent the strands from coming into contact with a mortar that is used to bond unprotected strands to the girder's concrete mass. As further discussed in Coogan (col. 1, lines 45-52), the preferred debonding sheath is a plastic tube having a longitudinal slit that allows the tube to be clipped over the strands to be debonded. However, because of the

longitudinal slit, this type of sheath is not as protective in preventing wet mortar from coming into contact with the strands to be debonded.

The object of the Coogan invention is to provide a pre-stressing sheath that would provide for best protection for preventing wet mortar for coming into contact with debonded strands (col. 1, lines 56-62), and not to eliminate eccentric forces, as implied in the Office Action. Eccentric forces are eliminated by strand debonding.

The case law holds that in order to rely on a reference as a basis for rejection of an applicant's invention, (i) the reference must either be in the field of applicant's endeavor or, (ii) if not, then be reasonably pertinent to the particular problem with which the inventor was concerned. *In re Oetiker*, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). See also *In re Deminski*, 230 USPQ 313 (Fed. Cir. 1986); *In re Clay*, 23 USPQ2d 1058, 1060-61 (Fed. Cir. 1992).

As it follows from the foregoing discussion, Coogan is neither in the field of applicants' endeavor (membrane bodies), nor is Coogan pertinent to the particular problem the inventors of the instant invention were concerned, namely, to create a membrane body, that is suitable for assuming under a load a set shape without undergoing deformation due to the permissible aerodynamic load through

a plurality of tie rods distributed according to a set pattern, and to keep said set shape flexible over time in the absence of a load.

Even, assuming, *arguendo*, that Coogan is pertinent reference, it still does not disclose insulation means arranged between two panels, associated with a tie rod, and formed of the same material as the tie rod. In particular, Coogan does not have and cannot have any suggestion for building the sheath of the external part of the roving of the tie rod.

In view of the above, it is respectfully submitted that the present invention, as defined by claim 41 is not obvious in view of Wilcox and Coogan, and is patentable thereover.

In view of the above, it is respectfully submitted that claim 41 is patentable over the prior art and is allowable.

Claims 42-44, 56-58, and 60-62 depend on claim 41 and are allowable of the same reason claim 41 is allowable and further because of specific features recited therein which, when taken alone and/or in combination with those of claim 41, are not disclosed or suggested in the prior art.

It is respectfully submitted that claims 63-78 are likewise allowable. Specifically, claim 63 recites a sail including a membrane body of claim 41 and relies for its patentability on the same inventive features as claim 41 and, therefore, is allowable for the same reason claim 41 is allowable.

Linville does not disclose or even remotely suggests the novel features of the present invention.

Claim 64 recites awning for civil engineering purposes and including a membrane body of claim 41. Accordingly, it is respectfully submitted that claim 64 is allowable for the same reason claim 41 is allowable.

Weitzel, as it is recognized by the Examiner, does not disclose insulation means, to say nothing how it is formed.

Claim 65 recites a method of forming membrane body of claim 41. Specifically, claim 65 recites that each said flexible longitudinal body forms the insulation means and one said tie rod inside said insulation means. The foregoing feature is not disclosed in Coogan, assuming, *arguendo*, Coogan is a pertinent reference.

In view of the above, it is respectfully submitted that the present invention, as defined by claim 65, is not made obvious by Wilcox and Coogan, and claim 65 is patentable thereover.

Claims 66-68 and 72-77 depend on claim 65 and are allowable at least for being dependent on an allowable independent claim.

Claim 69-78 are likewise allowable. Specifically, claim 69 recites a phase of applying a plurality of rovings (25) of free fibres (24) to said first face (12) (13) according to a set pattern. Claim 69 further recites a phase of subdividing the free fibres (24) of said roving (25) into two distinct portions substantially coaxial to each other, to make a sheath (15) with a first portion of said free fibres (24) and a tie rod (16) with a second portion of said free fibres (24).

It is respectfully submitted that the prior art, including Wilcox and/or Coogan does not disclose subdividing free fibres of a roving into to coaxial portions to form an insulation sheath and a tie rod. Accordingly, claim 69 is also allowable.

Claims 70, 71, 77, and 78 depend on claim 69 and are allowable at least for being dependent on an allowable subject matter.



## **CONCLUSION**

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance, and allowance of the application is respectfully requested.

Should the Examiner require or consider it advisable that the specification, claims and/or drawings be further amended or corrected in formal respects in order to place the case in condition for final allowance, it is respectfully requested that such amendment or correction be carried out by Examiner's Amendment and the case passed to issue. Alternatively, should the Examiner feel that a personal discussion might be helpful in advancing this case to allowance, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

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